

October 10-16, 2011 — Oak Ridge National Laboratory Neutron Sciences

Contacts:

SNS Instrument Hall
Coordinator 241-4432
ORNL LSS 574-6606
Computer Helpline 241-6765
ORNL Taxi 680-2303
680-9800
Weather 574-9836

SNS

Control Room 576-1503
RCT Support (radiation
control technician) 274-8658
User Support 241-4432
User Office 574-4600

HFIR

Control Room 574-7035
RCT Support (radiation
control technician) 574-6713
User Office 574-4523

SNS Café, Bldg 8600

Breakfast hours: M–F, 7:00 am – 9:30 am
Lunch hours: M–F, 10:45 am – 1:15 pm

HFIR Canteen, Bldg 7910

Lunch hours: M–F, 10:45 am – 1:15 pm

For questions or comments email us:
neutronscience@ornl.gov

neutrons.ornl.gov

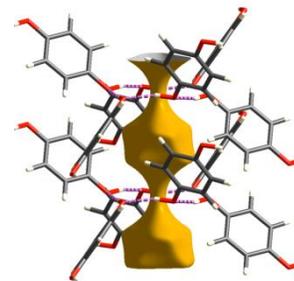
Follow Us



Research Spotlight

Host-guest interaction—a pathway to understanding supramolecular chemistry

Collaborators from the Centre for Materials Crystallography at Aarhus University in Aarhus, Denmark, are using TOPAZ, the Single-Crystal Diffractometer at SNS, to measure small crystals (~1 mm³) at low temperatures (100 K). Their object is to determine the atomic structure of host-guest clathrates, cage-like compounds that can trap smaller molecules. The researchers want to gain insight into the intermolecular interactions that occur in supramolecular chemistry by investigating a simple class of clathrates in which hydroquinone is the host molecule. Understanding these crystal structures is fundamental to the design and development of new materials with a vast number of potential applications ranging from sensors and nonlinear optics to gas storage materials. Collaborating with the PI, Henrik Clausen, are Mads Jørgensen, also from Aarhus University, and Xiaoping Wang, Christina Hoffmann, Matthew Frost, and Bryan Chakoumakos of ORNL's Neutron Scattering Science Division. The research is funded by the Danish Centre for the use of Synchrotron and Neutron facilities.



The host structure with the cavity void volume shaded.

This Week's Users

SNS, NOMAD (BL-1B)

Eugene Mamontov (ORNL NScD)
Suresh Chathoth (ORNL NScD)

SNS, BASIS (BL-2)

Lalitha Ganapatibhotla (Penn State Univ)
Herbert Rossetto (Univ of Birmingham)
Wei-Shan Chiang
Shih-Chun Huang (Penn State Univ)
Eugene Mamontov (ORNL NScD)

SNS, SNAP (BL-3)

Malcolm Guthrie (ORNL NScD)
Georgios Karotsis (ORNL NScD)

SNS, MAGICS (BL-4A)

Rosario Gerhardt (Georgia Inst of Tech)
Salil Joshi (Georgia Inst of Tech)
Abhijit Pramanick (ORISE)
Alexandru Stoica (ORNL NScD)
Ke An (ORNL NScD)
Hailemariam Ambaye (ORNL NScD)
Valeria Lauter (ORNL NScD)
Xun-Li Wang (ORNL NScD)

SNS, Liquids Reflectometer (BL-4B)

Hyungjin Lee (Univ of Akron)
Mark Foster (Univ of Akron)
Boxi Liu (Univ of Akron)
Liang Sun (Univ of Akron)
Jin Kuk Lee (Univ of Akron)
Adrian Jimenez
Jong Keum (ORISE)
Gernot Rother (ORNL PSD)
Andrew Stack (ORNL PSD)
David Wesolowski (ORNL PSD)
Nickolay Lavrik (ORNL CNMS)
Pat Collier (ORNL CNMS)
Seung-Yong Jung (ORNL CNMS)
John Anker (ORNL NScD)
Gregory Smith (ORNL NScD)
Jim Browning (ORNL NScD)

SNS, CNCS (BL-5)

Craig Brown (NIST)
Matthew Hudson (NIST)
Dirk Volkmer (Univ Augsburg)
Michael Hirscher (Max-Planck Inst)
John Larese (Univ of Tenn)
Paige Landry (Univ of Tenn)
Andrew Hicks (Univ of Tenn)
Christoph Wildgruber (ORNL NScD)

SNS, EQ SANS (BL-6)

Chun-Yu Chen (Nat'l Tsing Hua Univ)
Cheng-Che Yang (Nat'l Tsing Hua Univ)
E-Wen Huang (Nat'l Central Univ)
Chung-Kai Chang (Nat'l Central Univ)
Kuan-Wei Lee (Nat'l Central Univ)
Chun-Jen Su
Yen-Chih Huang
Yun Liu (NIST)
Xin Li (Rensselaer Polytechnic Inst)
Kunlun Hong (ORNL CNMS)
Gregory Smith (ORNL NScD)
Wei-Ren Chen (ORNL NScD)
Yang Zhang (ORNL NScD)
Bin Wu (ORNL NScD)
Kenneth Herwig (ORNL NScD)

SNS, VULCAN (BL-7)

Deepam Maurya (Virginia Tech)
Patrick Summers (Virginia Tech)
Brian Lattimer
Dong Ma (ORNL NScD)
Alexandru Stoica (ORNL NScD)
Xun-Li Wang (ORNL NScD)

SNS, POWGEN (BL-11A)

Daniel Bugaris (Univ of South Carolina)
 Hans-Conrad Loye (Univ of South Carolina)
 Chengfei Yu (Univ of Houston)
 Allan Jacobson (Univ of Houston)
 Xiqu Wang
 Steven McIntosh (Lehigh Univ)
 Rosemary Cox-Galhotra (Univ of Virginia)
 Craig Bridges (ORNL CSD)
 Zhonghe Bi (ORNL CSD)
 Mariappan Paranthaman (ORNL CSD)
 Chengdu Liang (ORNL CNMS)
 Zengcai Liu (ORISE)
 Lu Cai (ORISE)
 Ke An (ORNL NScD)
 Jason Hodges (ORNL NScD)
 Ashfia Huq (ORNL NScD)

SNS, TOPAZ (BL-12)

Mads Joergensen (Univ of Aarhus)
 Tara Michels-Clark (Univ of Tenn)
 Ruth Mikkelsen (Univ of Wisconsin)
 Dennis Mikkelsen (Univ of Wisconsin)
 Michal Chodkiewicz (Univ of Zurich)
 Johann Buergi (Univ of Bern)
 Juerg Hauser (Univ of Bern)
 Thomas Weber (Swiss Fed Inst)
 Anthony Linden (Univ of Zurich)
 Vickie Lynch (ORNL C&CSD)
 Robert Harrison (ORNL C&CSD)
 Deborah Penchoff (ORNL C&CSD)
 Tara Michels-Clark (Univ of Tenn)
 Peter Peterson (ORNL NScD)
 Bryan Chakoumakos (ORNL NScD)
 Henrik Clausen (ORNL NScD)
 Christina Hoffmann (ORNL NScD)

SNS, NSE (BL-15)

Changwoo Do (Juelich)
 Sow-Hsin Chen (Massachusetts Inst of Tech)
 Yun Liu (Univ of Delaware)
 Xin Li (Rensselaer Ploy Inst)
 Bin Wu (Rensselaer Poly Inst)
 Kunlun Hong (ORNL CNMS)
 Kenneth Herwig (ORNL NScD)
 Wei-Ren Chen (ORNL NScD)
 Yang Zhang (ORNL NScD)

SNS, SEQUOIA (BL-17)

Christopher Wiebe (Univ of Manitoba)
 Harlyn Silverstein (Univ of Manitoba)
 Alannah Hallas (Univ of Manitoba)
 Haidong Zhou (Florida State Univ)
 Guangyong Xu (Brookhaven National Lab)
 Igor Zaliznyak (Brookhaven National Lab)
 Zhijun Xu (Brookhaven National Lab)
 Genda Gu (Brookhaven National Lab)
 Hugh O'Neill (ORNL NScD)
 Eugene Mamontov (ORNL NScD)
 Qiu Zhang (ORNL NScD)
 Xiang-Qiang Chu (ORNL NScD)

SNS, ARCS (BL-18)

Stephen Shapiro (Brookhaven National Lab)
 Guangyong Xu (Brookhaven National Lab)
 Jinsheng Wen (Brookhaven National Lab)
 Zhijun Xu (Brookhaven National Lab)
 Peter Gehring (Brookhaven National Lab)
 Frank Weber (Argonne National Lab)
 Sven Krannich (Tech Univ of Karlsruhe)

HFIR, Polarized Triple-Axis Spectrometer (HB-1)

Songxue Chi (ORISE)
 Jaime Fernandez-Baca (ORNL NScD)
 Masaaki Matsuda (ORNL NScD)
 Feng Ye (ORNL NScD)

HFIR, Fixed-Incident-Energy Triple-Axis Spectrometer (HB-1A)

Ming Liu (Argonne Nat'l Lab)

HFIR, Neutron Power Diffractometer (HB-2A)

Yuen Yiu (Univ of Tenn)
 Nirmal Ghimire (Univ of Tenn)
 David Mandrus (Univ of Tenn)
 Adam Aczel (ORNL NScD)
 Feng Ye (ORNL NScD)
 Stephen Nagler (ORNL NScD)
 Vasile Garlea (ORNL NScD)

HFIR, NRSF2 (HB-2B)

Kiran Solanki (Mississippi State Univ)
 Radu Florea (Mississippi State Univ)
 Paris Cornwell (ORISE)
 Camden Hubbard (ORNL PSD)

HFIR, (HB-2C)

Koji Kaneko (JAEA)
 Jooseop Lee (Univ of Virginia)
 Jaime Fernandez-Baca (ORNL NScD)
 Songxue Chi (ORNL NScD)
 Masaaki Matsuda (ORNL NScD)

HFIR, Triple-Axis Spectrometer (HB-3)

Jun Zhao (Univ of CA)

HFIR, Four-Circle Diffractometer (HB-3A)

Xianglin Ke (ORNL NScD)
 Huibo Cao (ORNL NScD)

HFIR, SANS (CG-2)

Megan Robertson (Univ of Houston)
 Avantika Singh (Univ of Houston)
 Andrew Jackson (NIST)
 Elizabeth Kelley (Univ of Delaware)
 Thomas Smart (Univ of Delaware)
 Yuri Melnichenko (ORNL NScD)
 Li Lin
 Michael Agamalian (ORNL NScD)
 Melissa Sharp (ORNL NScD)

HFIR, Bio-SANS (CG-3)

Karen Rutherford (Penn Univ of Pennsylvania)
 C. Lee (Univ of Southern CA)
 Khiza Mazwi (Univ of Southern CA)
 Chia-Hao Chang (Univ of Southern CA)

HFIR, Cold Neutron Triple-Axis Spectrometer (CG-4C)

Yusuke Nambu (Univ of Tokyo)
 Teruo Yamazaki (Univ of Tokyo)

Local Happenings

10/12/2011 Seminar

First-principles Study of Impurity-filling in CoSb_3 and Phonons in TiO_2 , Zhi-Gang Mei, 8600, Room C-156, 11:00 AM – 12:00 NOON

10/13/2011 Seminar

Fighting Cancer with Nanoparticle Medicines, Mark C. Davis, California Institute of Technology, Building 8600, Iran Thomas Auditorium. 4:00 – 5:00 PM

10/14/2011 Seminar

NSSD Friday Seminar Series: (1) Magnetically driven metal-insulator transition in NaOsO_3 ; (2) An apparent tricritical like behavior of confined water, Stuart Calder, Yang Zhang, Building 8600, Conference Room C-156, 9:30 – 11:00 AM